CLAIMS

1. A method of creating autonomous musical output comprising:
creating a mutually inhibiting neuronal network comprising a plurality of nodes arranged to integrate and fire;
associating each of the plurality of nodes with a musical instrument; and
creating, when a node fires, a musical output corresponding to the musical instrument associated with the firing node.

2. A method as claimed in claim 1, wherein the plurality of nodes is comprised of a plurality of subsets of the plurality of nodes and each sub-set is associated with a single, different percussive group.

3. A method as claimed in claim 2, wherein each sub-set is a grouping of adjacent ones of the plurality of nodes.

4. A method as claimed in claim 2 or 3, wherein the plurality of nodes is comprised of eight sub-sets and each sub-set is associated with one of: Base drum, snare drum, hi hat, cymbal, tom drum, bong, percussion.

5. A method as claimed in any preceding claim, comprising: changing the musical output by changing the musical instrument to which a node is associated.

6. A method as claimed in any one of claims 1 to 5, comprising:
exciting some or all of the plurality of nodes according to a pattern that determines what level of excitement is provided to which nodes at different times.

7. A method as claimed in claim 6, comprising changing the musical output by changing the pattern.

8. A method as claimed in claim 7, wherein a user changes the pattern by selecting what level of excitement is provided to which nodes at different times.

9. A method as claimed in any preceding claim further comprising, at each one of a plurality of sequential periods of time:
calculating an excitation level for each of the plurality of nodes;
determining from the calculated excitation level which nodes fire in the current interval of time;
translating the identity of the nodes that fire in the current interval of time into a real-time musical output comprising notes of the musical instruments associated with the firing nodes.

10. A method as claimed in claim 9, comprising, after a node fires, preventing it from subsequently firing for at least a delay period.

11. A method as claimed in claim 10, wherein the delay period duration is user programmable.

12. A method as claimed in claim 9, 10 or 11 wherein calculation of the excitation level of a node at a first interval is dependent upon whether the node was excited, in the preceding interval, by the firing of a node or nodes to which it is connected by an activation connection.

13. A method as claimed in any one of claims 9 to 12, comprising:
providing excitory impulses to the plurality of nodes according to a predetermined pattern that determines what impulses are provided to which nodes at different times,
wherein calculation of the excitation level of a node at a first interval is dependent upon
an excitory input impulse received by the node at the first interval.

14. A method as claimed in any one of claims 9 to 13, wherein calculation of the excitation level of a node at a first interval involves multiplying the current or previous excitation level by a factor.

15. A method as claimed in claim 14, wherein the factor is greater than 1.

16. A method as claimed in claim 15, wherein the factor is user programmable.

17. A method as claimed in any one of claims 9 or 16, wherein the calculation of the excitation level of a node at a first interval is dependent upon the node or nodes to which it is connected by an inhibitory connection.

18. A method as claimed in any preceding claim wherein the step of creating a mutually inhibiting neuronal network comprises user specification of the number of nodes in the network.

19. A method as claimed in any preceding claim wherein the step of creating a mutually inhibiting neuronal network comprises user specification of the tempo of the musical output.

20. A method as claimed in any preceding claim further comprising :
displaying a visual representation of each node of the network;
displaying an indication when a node fires ;
and simultaneously providing, for each firing node, musical output corresponding to the musical instrument associated with the firing node.

21. A Computer program comprising instructions for carrying out the method of any preceding claim.

22.. A method of creating autonomous musical output comprising:

creating a mutually inhibiting neuronal network comprising a plurality of nodes arranged to integrate and fire;
associating each of the plurality of nodes with a particular musical output; and
exciting some or all of the plurality of nodes according to a predetermined pattern that determines what level of excitement is provided to which nodes at different times.

23. A method as claimed in claim 22, comprising changing the musical output by changing the predetermined pattern.

24. A method as claimed in claim 23, wherein a user changes the predetermined pattern by selecting what level of excitement is provided to which nodes at different times.

25. A method as claimed in any one of claims 22, 23 or 24, wherein the step of associating each of the plurality of nodes with a musical output associates each of the plurality of nodes with a musical instrument, the method further comprising:
creating, when a node fires, a musical output corresponding to the musical instrument associated with the firing node.

26. A method as claimed in claim 25, wherein the plurality of nodes is comprised of a plurality of non-overlapping subsets of the plurality of nodes and each sub-set is associated with a single, different percussive group.

27. A method as claimed in claim 26, wherein each sub-set is a grouping of adjacent ones of the plurality of nodes.

28. A method as claimed in claim 26 or 27, wherein the plurality of nodes is comprised of eight non-overlapping sub-sets and each sub-set is associated with one of: Base drum, snare drum, hi hat, cymbal, tom drum, bong, percussion.

29. A method of creating autonomous musical output comprising:
creating a mutually inhibiting neuronal network comprising a plurality of nodes arranged to integrate and fire; and at each one of a plurality of sequential time intervals:
calculating an excitation level for each of the plurality of nodes wherein said calculation involves, for at least some of the nodes, multiplying the excitation level of the node at the previous time interval by a factor;
determining from the calculated excitation level which nodes fire in the current time interval; and
translating the identity of the nodes that fire in the current time interval into a real-time musical output.

30. A method as claimed in claim 29, wherein the factor is greater than 1.

31. A method as claimed in claim 29 or 30, wherein the factor is user programmable.

32. A method of providing a visual representation of the music comprising displaying a plurality of nodes;
associating each node with a musical instrument; and
highlighting a node when contemporaneously output music comprises a note of the instrument associated with that node.

33. A method of contemporaneously generating music comprising: upon a persons heart rate, comprising:
measuring a persons heart rate;
providing the measured heart rate as an input to a musical central pattern generator.

34. A method for contemporaneously generating an oscillating output comprising:

creating a mutually inhibiting neuronal network comprising a plurality of nodes arranged to integrate and fire;
exciting some or all of the plurality of nodes according to a pattern that determines what level of excitement is provided to which nodes at different times.; and
measuring a persons heart rate and changing the pattern in dependence upon the measured heart rate.

35. A method or user interface substantially as hereinbefore described with reference to and/or as shown in the accompanying drawings.

36. Any novel subject matter or combination including novel subject matter disclosed, whether or not within the scope of or relating to the same invention as the preceding claims.